

DOH-Hillsborough County COVID-19 Surveillance Report

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SUMMARY: Over the past week (12/6 – 12/12), 4,036 COVID cases were identified in Hillsborough County, an increase of 29% from 3,126 during the previous week. The 7-day moving **average of cases per day (577) increased** and rolling **percent positivity (8.1%) increased** from the previous week. Case rates are increasing across every age group and case rates are highest in the **25-34** age group. Rates increased in all race/ethnicities during week 49, and **case rate was highest in Hispanics**. Case rates are also **increasing Statewide and in Pinellas and Pasco Counties**. During the past week, **testing volume increased** as we have continued to see increasing reports of antigen tests. We are seeing delays in the turnaround time for the reporting of antigen testing results. This appears to be occurring because historical results are being reported as facilities are beginning to electronically report results and delays in our ability to manually enter all other (non-electronic) results into our system. Hillsborough County **hospitalizations for COVID continue to increase** and are now averaging 263 total COVID inpatients a day, up 3.1% from last week.

INFLUENZA/RESPIRATORY SURVEILLANCE: Influenza activity remains extremely low throughout Hillsborough County and the State. No outbreaks of Influenza or other respiratory pathogens have been reported this influenza season. Very few positive influenza labs have been received and no pediatric mortalities have been reported. Additional information and data about influenza surveillance is available at: <http://www.floridahealth.gov/diseases-and-conditions/influenza/>

Fig 1. Daily New COVID cases and percent positivity trends in Hillsborough County Residents. The **7-day moving average for percent positivity increased, and is now 8.1%**. The **7-day average number of new cases per day (577) sharply increased this past week**. Hillsborough County has reported 64,967 cases to date.

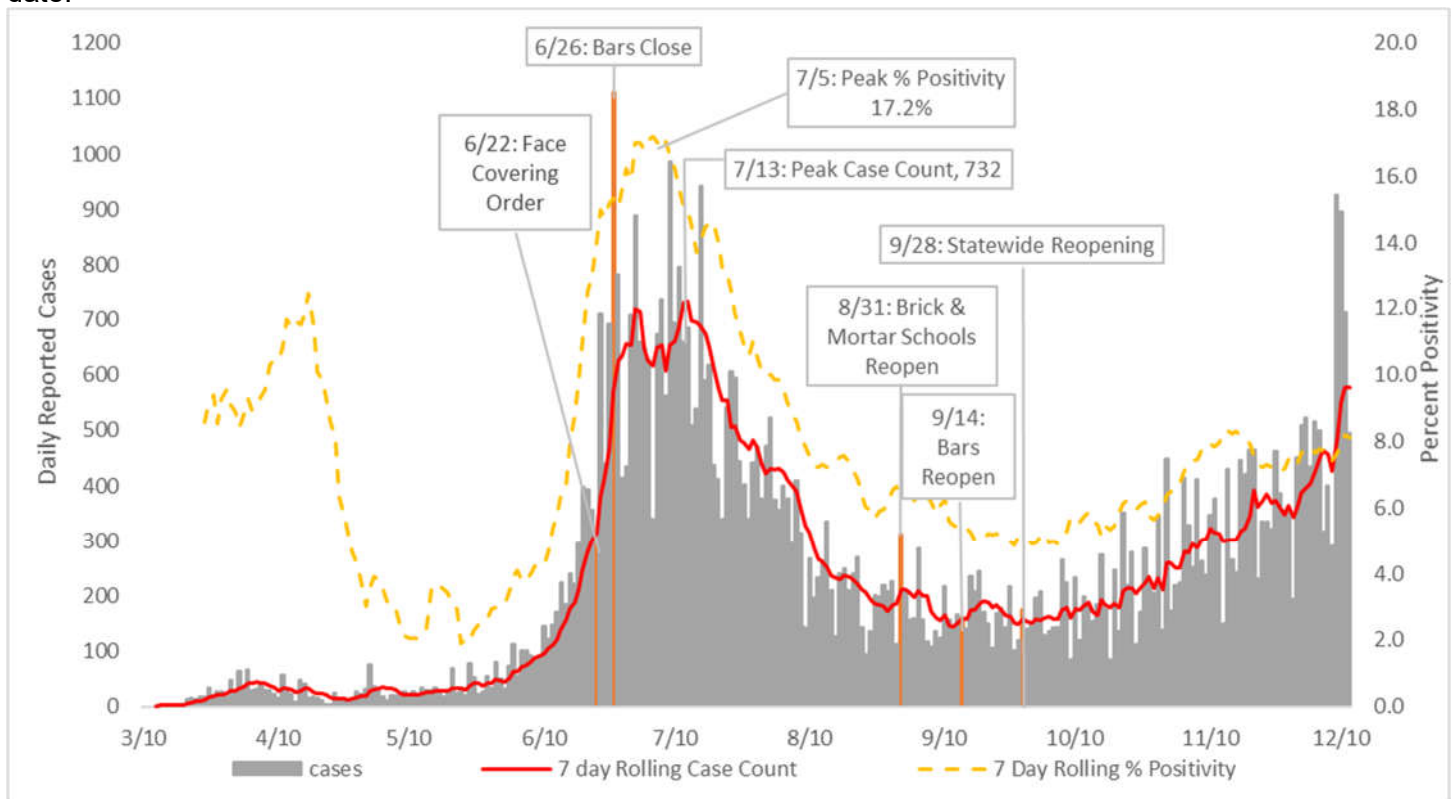
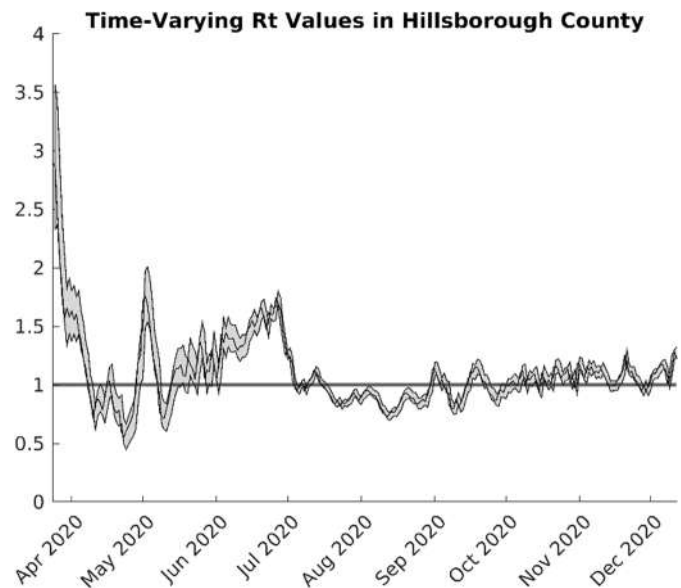


Fig 2 (right). R_t estimates are based on new case rates (incidence), the current estimate of R_t for Hillsborough County is **1.22 (90% CL= 1.18 - 1.26)**. The R_t value has increased from last week. An R_t above 1.0 means the outbreak is growing – or viewed another way, one person is infecting more than one additional person – and R_t below 1.0 means that outbreak is shrinking.



CASES, CASE RATES AND GROUP SETTINGS

Fig 3. Comparison of COVID 7-day average case rate per 100,000 population for Pinellas, Pasco and Hillsborough Counties and the State of Florida for the past 90 days. All three **Tampa Bay Area counties saw increases in rates** over the past week. The **Florida case rate also increased** and is now 44.4 cases per 100,000.

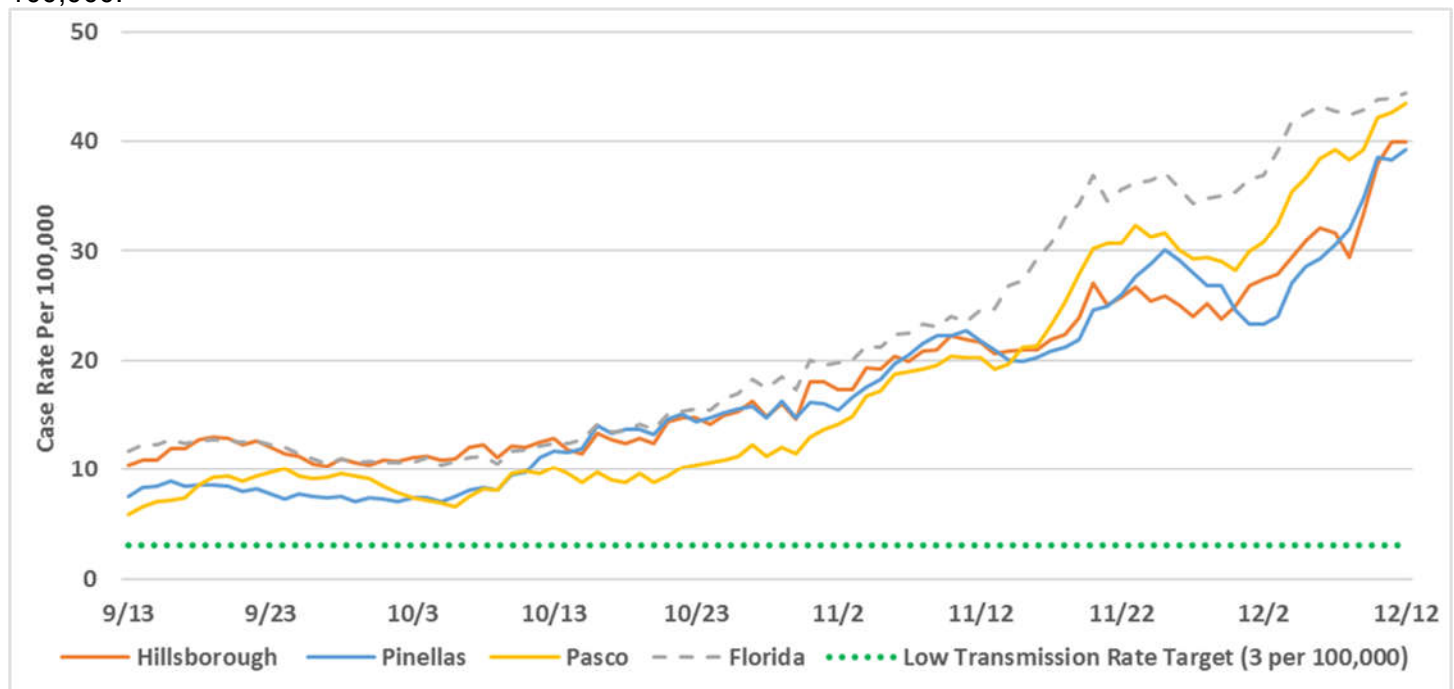


Fig 4. Comparison of COVID 7-day average case rate per 100,000 population by race and ethnicity for the past 90 days in Hillsborough County. Population data was acquired from FLHealth CHARTS. Cases with unknown race or ethnicity are excluded. Rates are slowly increasing for most race and ethnicities, but **rates continue to remain highest among Hispanics.**

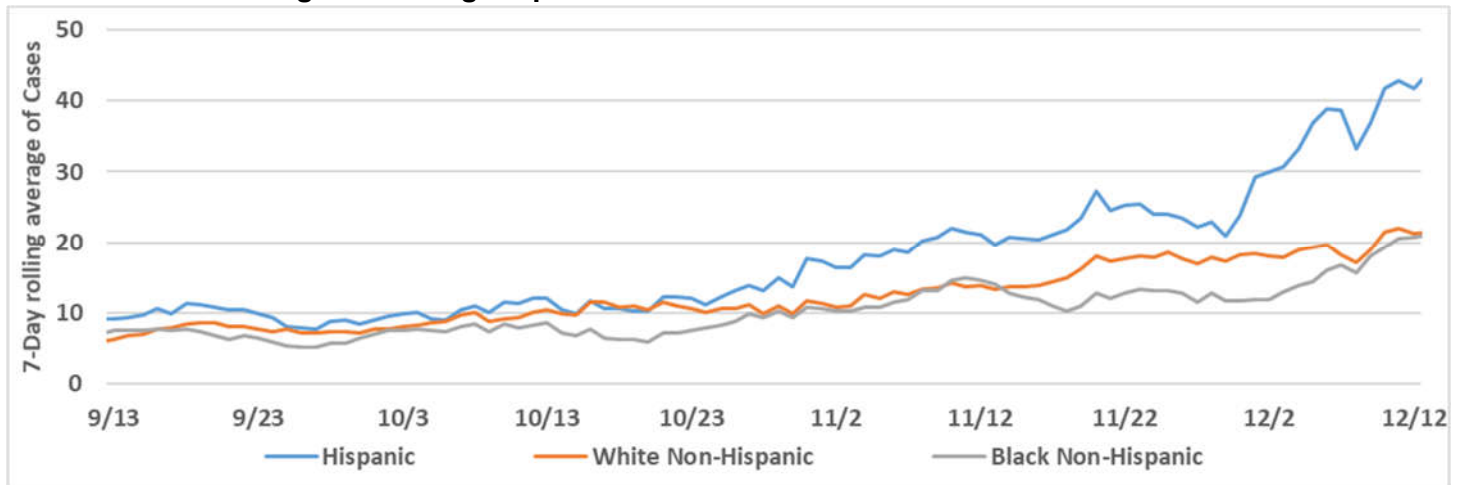


Fig 5. COVID 7-day average case rates per 100,000 population by age group for the past 90 days in Hillsborough County. **Rates have continued with their increasing trend for most age groups**, except for the 65+ age group, which has remained stable. **Rates remain highest among 25-34 age group.**

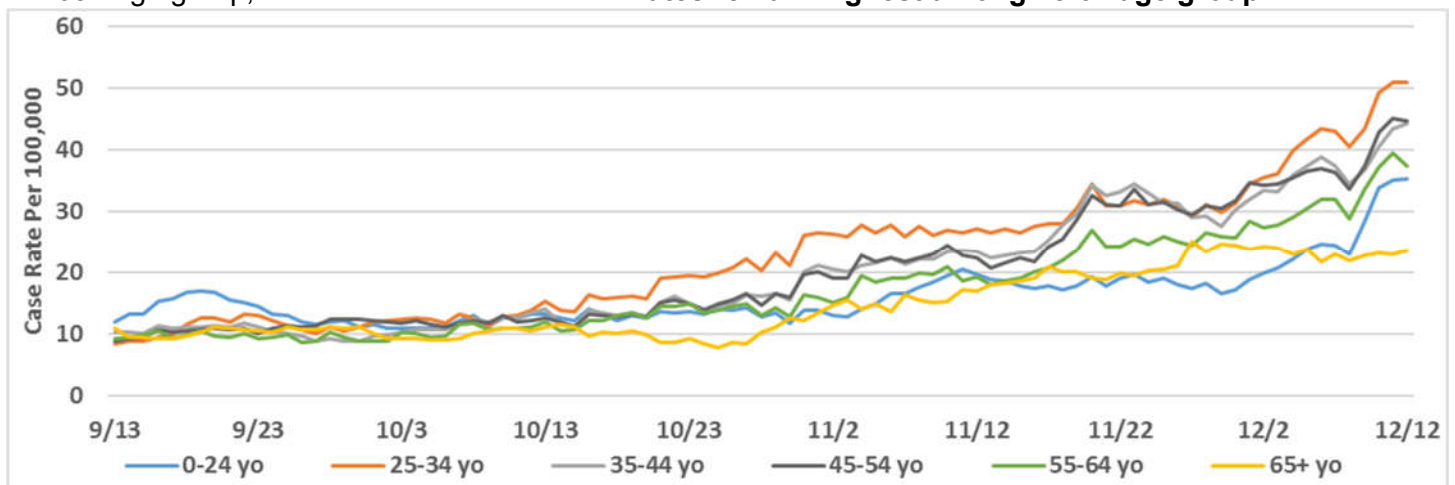


Fig 6. The 0-24 yo age group from Fig 5 (above), broken out into Preschool aged (0-4 yo), Elementary aged (5-10 yo), Middle/High School aged (11-17 yo) and College aged (18-24 yo). COVID pediatric and college-aged case rates per 100,000 population by age group, over the past 90 days in Hillsborough County. **Rates remain highest in college aged cases and increased across all age groups.**

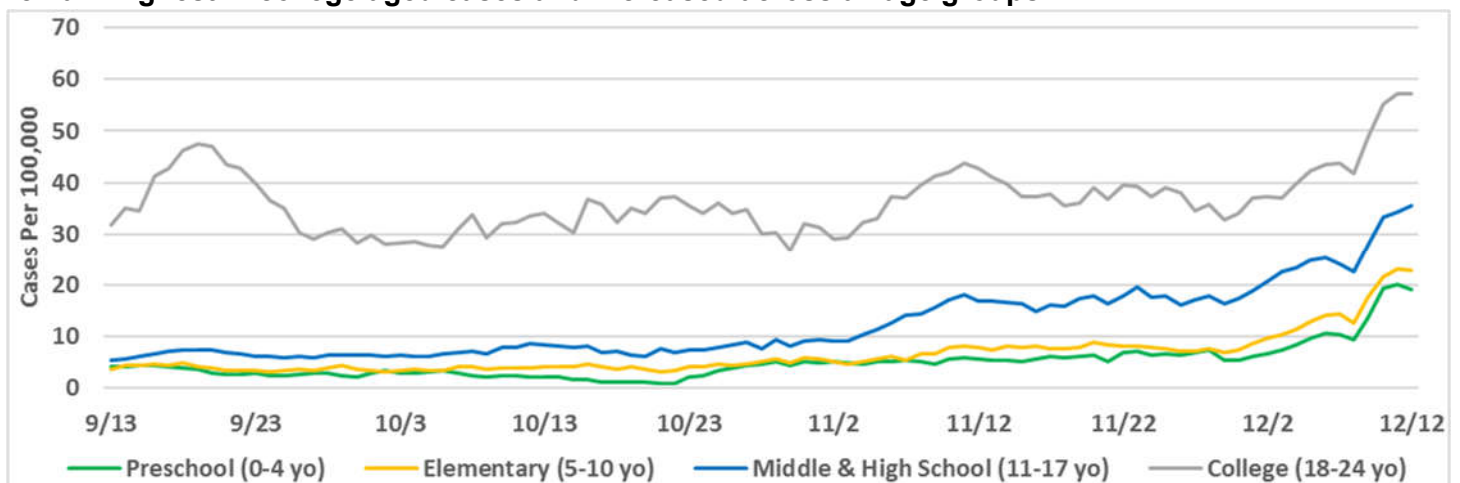


Fig 7. (right) Weekly reported COVID cases associated with **students and staff at K-12 schools** in Hillsborough County since the start of in person learning. COVID case must have been on campus during exposure period or infectious period to be counted. **Weekly numbers have increased** since Thanksgiving week. During this past week, **243 cases were reported in students and 102 in staff**. The majority of cases are associated with Thanksgiving/family gatherings, travel and extra-curricular activities.

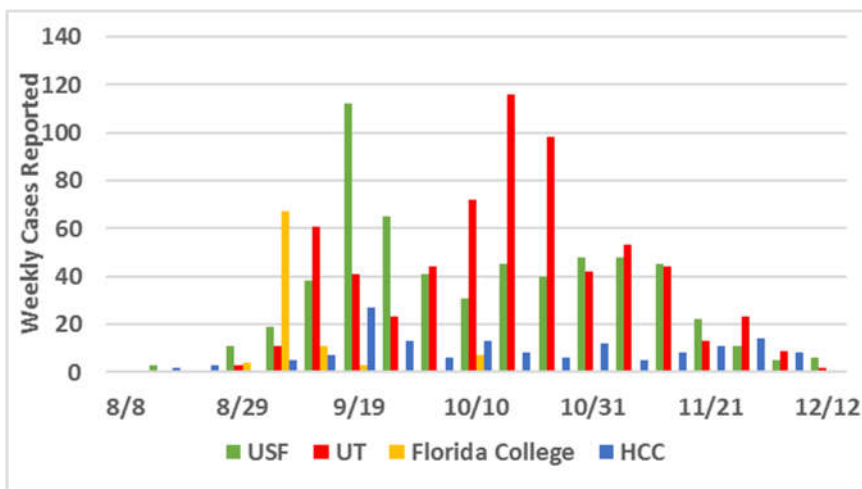
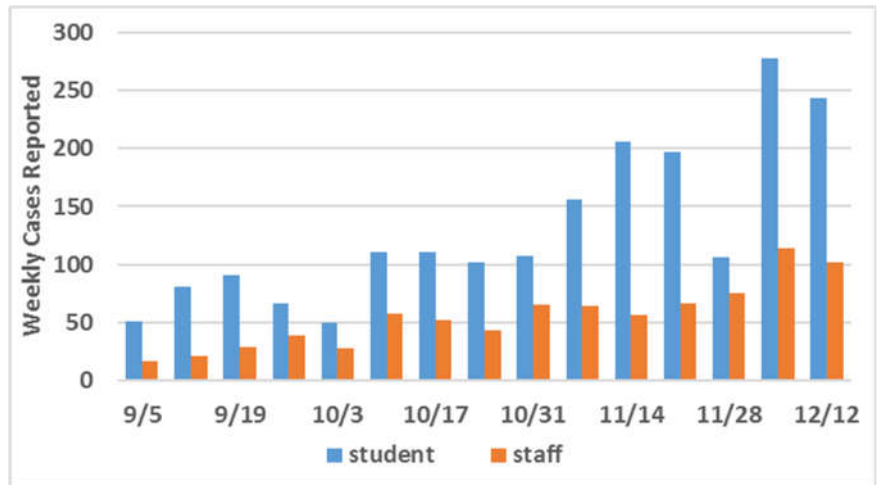


Fig 8. (left) Weekly reported COVID cases associated with **college students and staff** by reporting week. COVID case must have been on campus during exposure period or infectious period to be counted. All local campuses – except HCC - are doing only online learning and testing and have limited numbers of students on campus after the Thanksgiving holiday. Small numbers of cases continue to be identified, but have **decreased this past week**.

Fig 9. Daily COVID cases associated with **LTCF residents and staff** for the past 90 days in Hillsborough County. COVID case must have been on LTCF site during exposure period or infectious period to be counted. Cases among both residents and staff were flat over the past week.

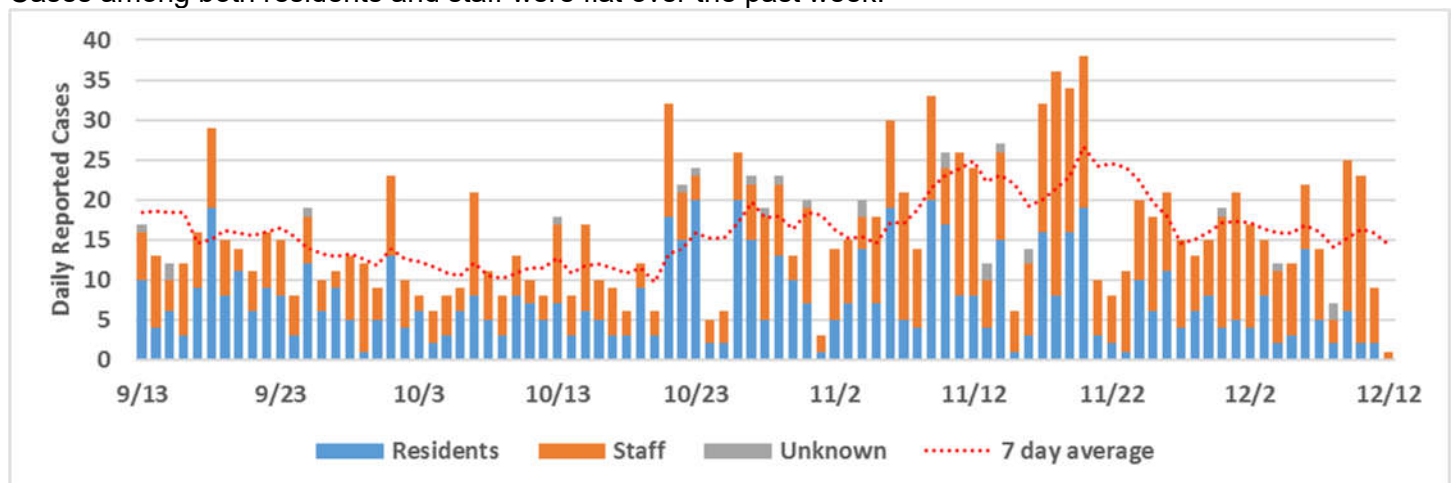
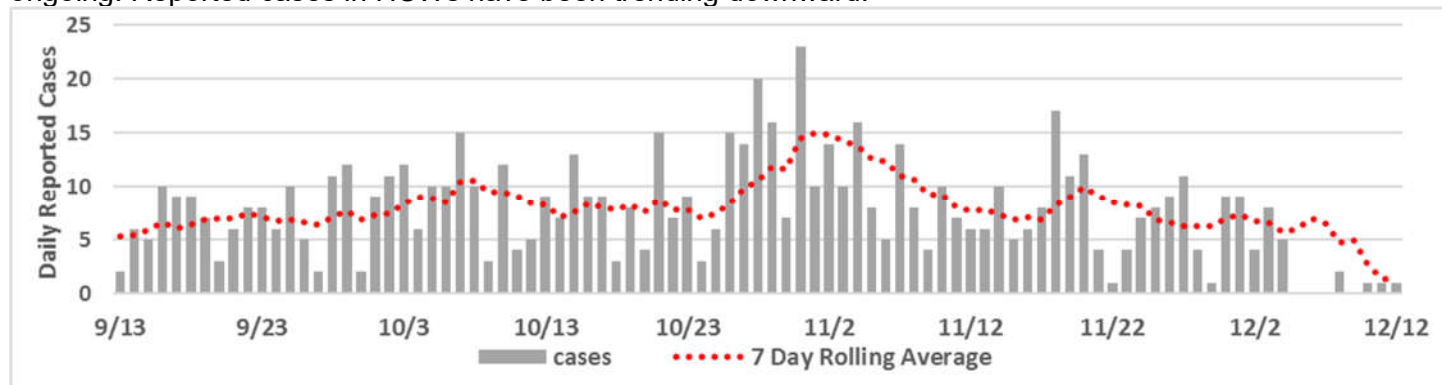


Fig. 10. COVID cases in **Health Care Workers (HCW)** for the past 90 days. To collect case occupation a case interview is required with the case, so the past week has missing/incomplete data, as case investigations are ongoing. Reported cases in HCWs have been trending downward.



TESTING VOLUME, TURN-AROUND TIME AND PERCENT POSITIVITY

Fig 11. Reported COVID testing volume for Hillsborough County residents for the past 90 days. Tests are not de-duplicated by person or day; therefore, one person can have multiple tests counted across multiple days. **Testing volume continues to increase and overall testing volume was higher during the past week.**

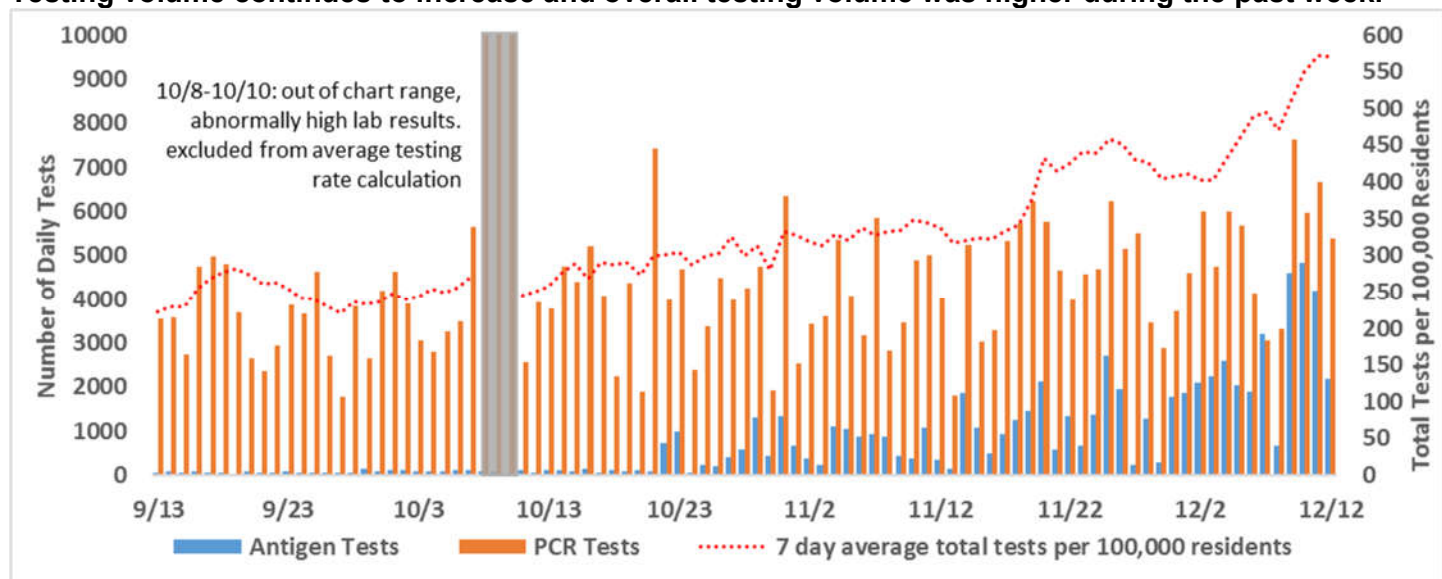


Fig 12. Average COVID testing turn-around-time (TAT) from specimen collection until results reported to DOH for the past 90 days. We are seeing delays in the turnaround time for the reporting of antigen testing results. This appears to be occurring because historical results are being reporting as facilities are beginning to electronically report results as well as delays in the ability for DOH to manually enter all other (non-electronic) results into our system. **PCR test average TAT remains around 2 days.**

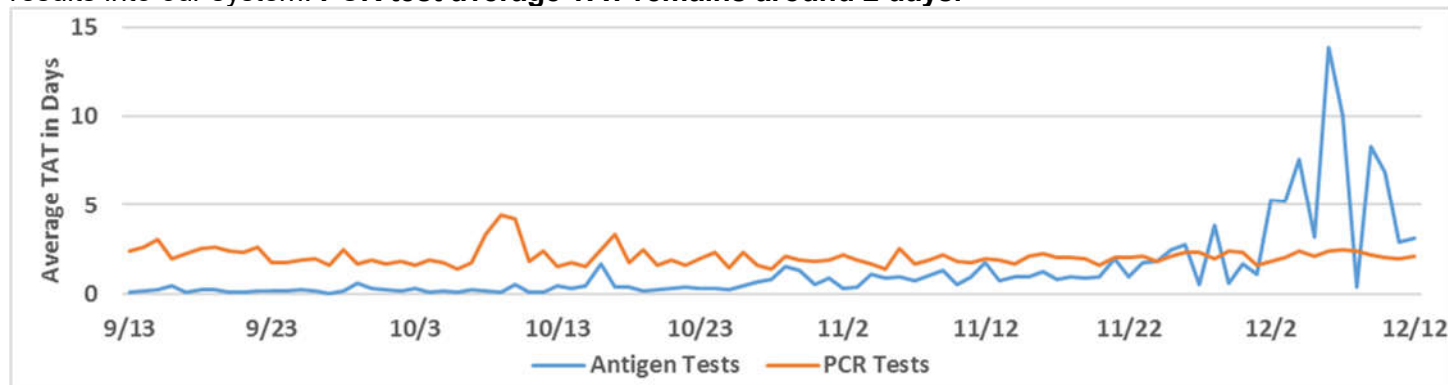


Fig 13. COVID testing percent positivity by age group for the past 90 days on a weekly average, based on Merlin case data for Hillsborough County. Percent positivity was calculated by the date a lab was created that week for a positive COVID case divided by the total number of people tested that week. **Percent positivity has increased across nearly every age group, and rates are highest in the 15-24 age group.**

	9/19/2020	9/26/2020	10/3/2020	10/10/2020	10/17/2020	10/24/2020	10/31/2020	11/7/2020	11/14/2020	11/21/2020	11/25/2020	12/5/2020	12/12/2020
0-4 years	4.37%	3.49%	4.26%	3.15%	1.94%	2.83%	5.46%	5.70%	5.49%	4.12%	6.95%	6.94%	6.62%
5-14 years	6.00%	4.47%	6.09%	6.00%	6.55%	6.77%	8.03%	8.16%	10.37%	7.92%	8.47%	9.25%	9.03%
15-24 years	12.50%	10.11%	9.23%	10.06%	10.28%	9.68%	8.80%	10.56%	12.24%	8.67%	7.60%	8.37%	9.46%
25-34 years	4.27%	4.39%	4.79%	4.88%	5.85%	6.59%	7.68%	7.98%	8.78%	7.84%	6.78%	8.39%	9.01%
35-44 years	4.05%	4.40%	4.45%	4.93%	5.48%	5.48%	6.88%	7.51%	8.39%	8.68%	7.82%	8.50%	8.52%
45-54 years	3.79%	4.77%	5.05%	4.90%	5.00%	5.41%	6.71%	7.72%	7.84%	8.56%	8.66%	8.60%	9.18%
55-64 years	3.33%	3.60%	3.86%	3.96%	4.36%	4.69%	5.03%	6.35%	6.30%	5.99%	6.98%	7.13%	7.61%
65-74 years	3.28%	3.22%	4.14%	3.85%	3.12%	4.38%	4.27%	5.90%	5.88%	5.63%	7.06%	6.03%	7.07%
75-84 years	4.53%	3.90%	3.76%	3.65%	2.73%	3.52%	4.54%	6.49%	6.82%	5.89%	6.86%	5.84%	6.40%
85+ years	5.84%	5.22%	4.08%	2.26%	3.42%	4.81%	4.24%	5.06%	5.02%	2.94%	3.62%	2.94%	4.81%

HOSPITALIZATIONS AND HOSPITALIZATION RATE

Fig 14. COVID admits and inpatients in Non-ICU and ICU beds in Hillsborough County, based on the AHCA ESS Report. Hillsborough County **hospitalizations for COVID continue to increase** and are now averaging 263 total COVID inpatients a day, up 3.1% from last week.

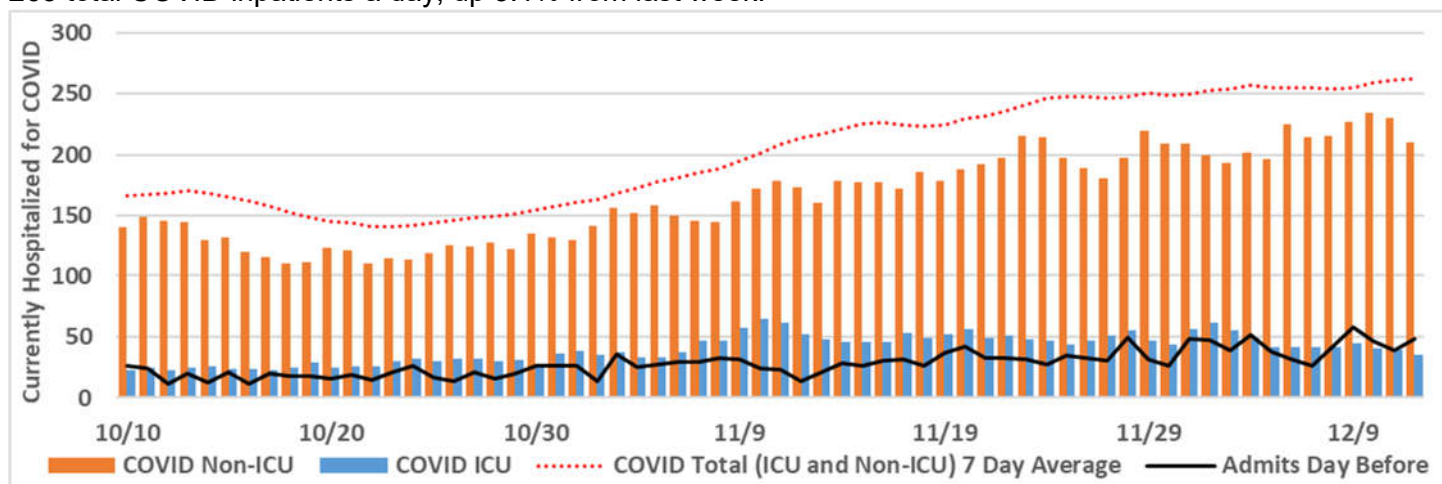


Fig 15. Percentage of Hospital and ICU beds occupied in Hillsborough County, based on AHCA ESS Report. Occupied beds remained at 82% for ICU bed and around 73% in Non-ICU beds.

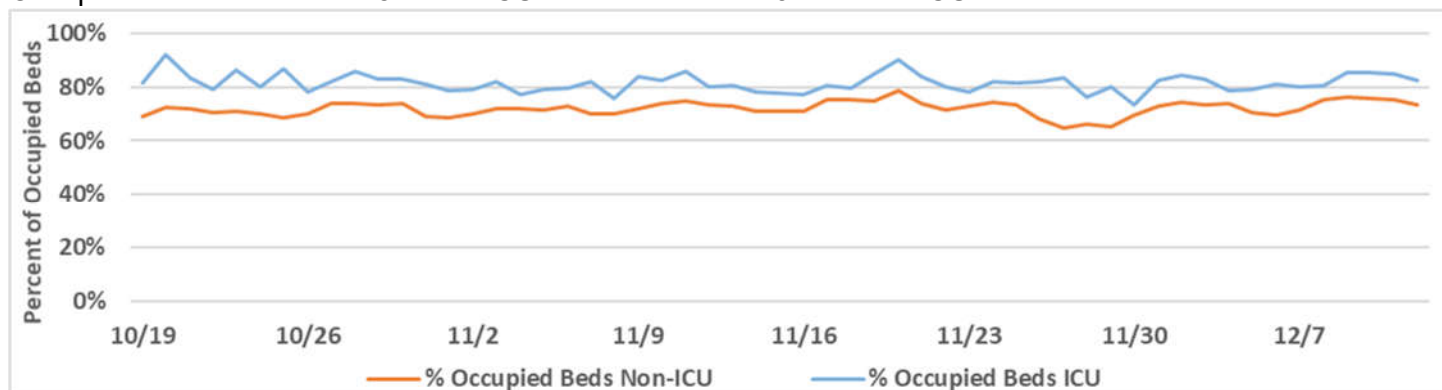


Fig 16. COVID Hospitalization rate per 100,000 by Race/ethnicity, over the past 90 days, based on Merlin case data. Cases with unknown race/ethnicity are excluded. Population data was acquired from FLHealth CHARTS. Over the past week, **Hospitalization rates were highest in Black Non-Hispanic and Hispanic cases.**

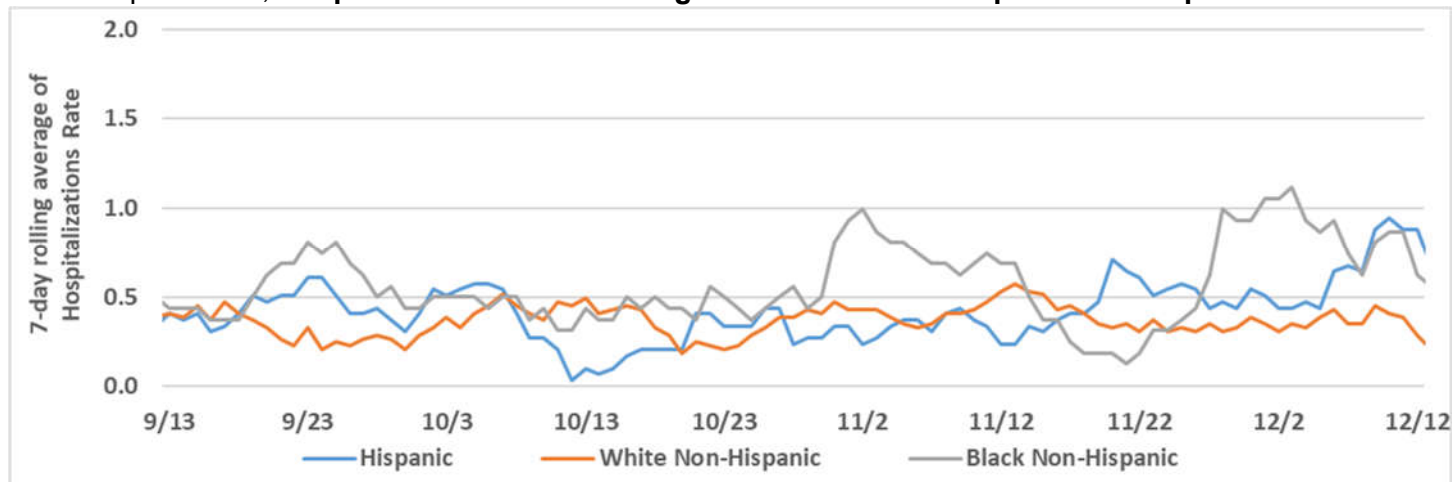
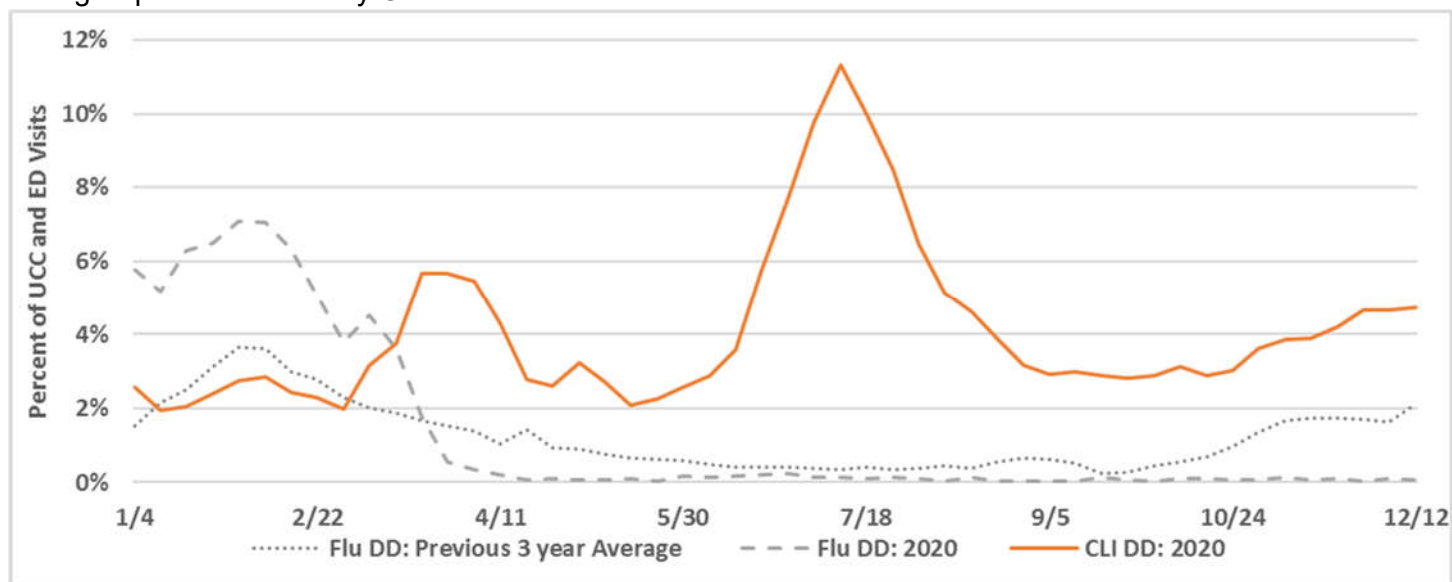


Fig 17. Percentage of Urgent Care Center (UCC), Hospital, and Emergency Department (ED) visits with a discharge diagnosis (DD) for influenza (flu) or COVID-like illness (CLI) in Hillsborough County, based on FL-ESSENCE reporting facilities, by reporting week. Visits remain well below the historical values for flu. **The percentage of visits for CLI has increased slightly from last week and remains higher than levels seen during September and early October.**



DEATHS AND DEATH RATES

Important Note: COVID deaths are reported to DOH from a variety of sources including hospitals, Medical Examiners Offices and from the Vital Statistics database. The Vital Statistics Database Data is reported electronically and can have delays of 2-4 weeks from the date of death until the date reported. Data during this time frame should be assumed to be incomplete and is indicated by the shaded area in each graph below.

Fig 18. Daily COVID deaths reported by date of death over the past 90 days, based on Merlin case data and Vital Statistics Death data. Over the past 90 days, reported COVID deaths have averaged been between 2 – 4 per day and **are below** counts observed in July and August.

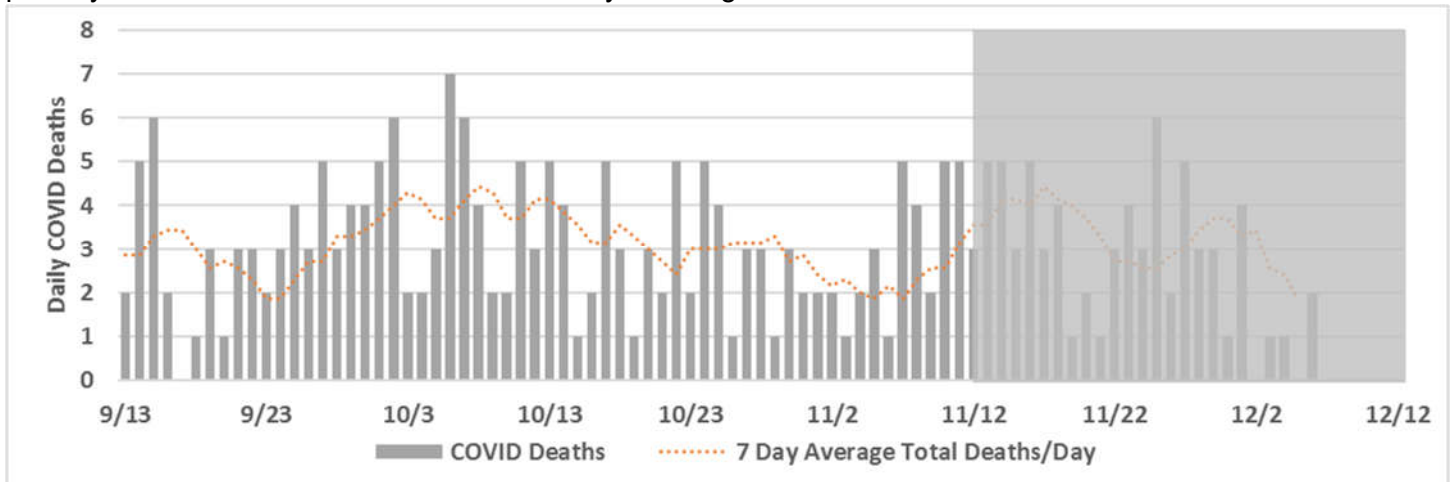


Fig 19. COVID 7-day rolling average death rate per 100,000 by race/ethnicity, for the past 90 days, based on Merlin case data and Vital Statistics Death data. Population data was acquired from FLHealth CHARTS. Cases with unknown race/ethnicity are excluded. Over the past 90 days, **death rates have been consistent across race/ethnicities.**

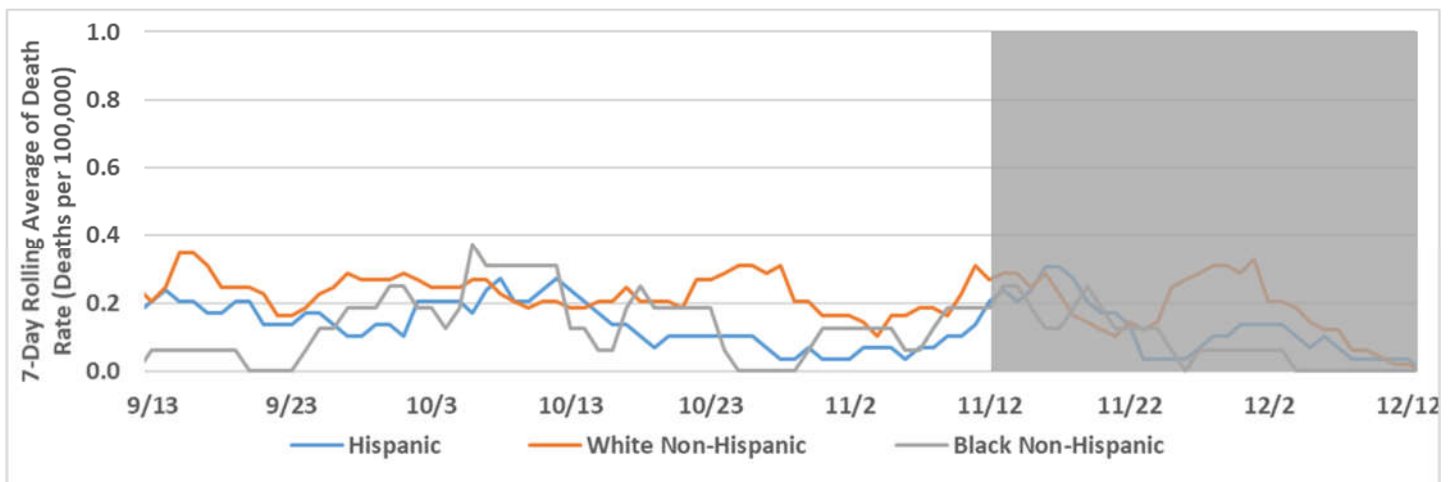
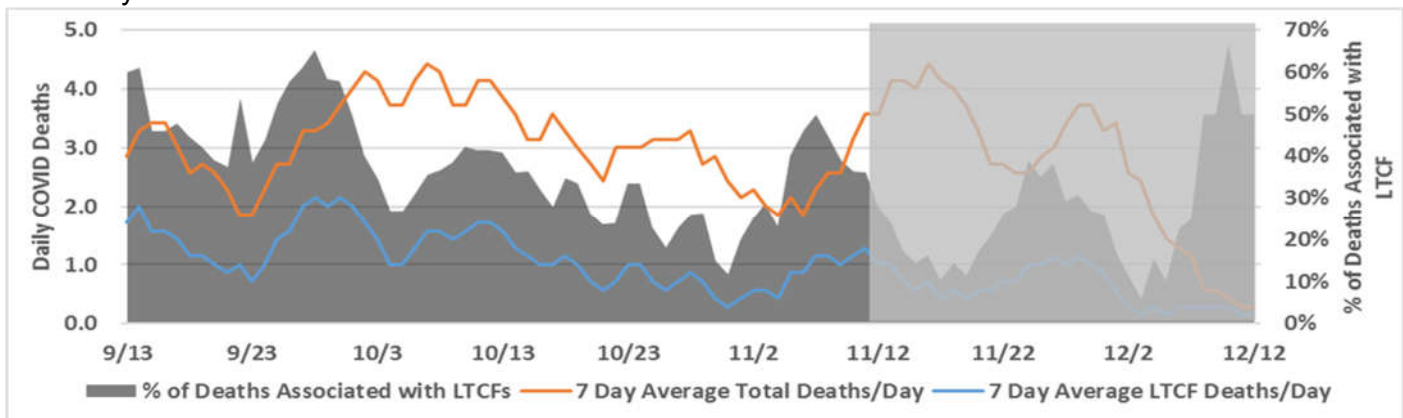


Fig 20. COVID Deaths associated with LTCFs as a percentage of all deaths, over the past 90 days, based on Merlin Data and Vital Statistics Death data. To date, 428 of the 986 (43%) of COVID deaths in Hillsborough County were associated with LTCFs. Recently, LTCF associated deaths have accounted for about 1 death/day.



Additional COVID surveillance data, visualizations and information can be found at the links below:

- Florida Department of Health Statewide COVID Dashboard: <https://experience.arcgis.com/experience/96dd742462124fa0b38ddedb9b25e429/>
 - Hillsborough County COVID Dashboard: <https://www.hillsboroughcounty.org/en/residents/public-safety/emergency-management/stay-safe/covid-19-dashboard>
 - Hillsborough County School District Dashboard: <https://hillsboroughschools.org/doc/2744/school-reopening-plan/frequently-asked-questions/coviddash/>
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Additional notes about data sources and data collection for the charts and tables used in this report:

Merlin reportable disease database: Merlin serves as the state's repository of reportable disease case reports, including automated notification of staff about individual cases of high-priority diseases. Access to Merlin is available only to approved Department of Health employees. COVID data is entered in Merlin in multiple ways. Data fields associated with Electronic Lab Reports (ELRs) or electronic case reports will be auto populated when available. Additionally, specific to COVID cases, the Healthy Together APP allows for individuals to complete and report demographics, symptomology and other data elements to DOH. Case investigators and contact tracers also make attempts to interview each COVID case to collect or verify demographics and other important public health data. As the data is collected from case investigations the Merlin database will be updated. Some data elements, such as deaths and group care associations (Jails, LTCFs, and Schools) are reviewed by local and state staff for accuracy. Data within Merlin is considered provisional and is subject to change.

AHCA ESS Report: Florida's Agency for Health Care Administration (AHCA) requires all licensees providing residential or inpatient services to use the Emergency Status System (ESS) database for reporting its emergency status, planning or operations. In response to COVID the Agency added new reporting requirements related to COVID cases and hospitalizations at AHCA licensed facilities.

ESSENCE-FL: The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) is a biosurveillance system that collects emergency department chief complaint data from participating hospitals and urgent care centers in Florida, call data from the Florida Poison Information Center Network, reportable disease data from the Merlin database, and mortality data from the Florida Office of Vital Statistics. The objective of this surveillance system is to provide the epidemiologist with the data sources and analytic tools needed to identify outbreaks or unusual trends more rapidly, leading to a more timely public health response.

FLHealth CHARTS: Powered by Florida's Bureaus of Community Health Assessment and Vital Statistics. CHARTS stands for Community Health Assessment Resource Tool Set, and compiles multiple datasets from a variety of agencies into a single source. Several data sources include Agency for Health Care Administration (AHCA), Florida Department of Health, Florida Department of Elder Affairs, Florida Department of Law Enforcement, and many others. A complete list of data sources can be found [here](#). Data queries such as population estimates, birth rates, death rates, marriage rates, and reportable disease statistics can be found using this tool.